**IN THE SPECIFICATION**

**[0019]** The FCC unit 190 is adapted to heat crude oil received from an oil feed stock source (not shown) and convert the oil vapor into one or more different petroleum products including liquefied petroleum gas (LPG) and gasoline. In one embodiment, the FCC unit 190 generally includes a regenerator and a cracking chamber arranged in a conventional manner. One example of an exemplary FCC unit is described in United States Patent Application ~~Serial No. 10/445,453~~ Publication No. 2004/0099572, filed May 27, 2003, which is hereby incorporated by reference in its entirety.

**[0038]** The control module 104 is coupled to the injection system 106 to control the rates and/or amounts of catalyst that are delivered by the injection system 106 into the delivery line 115. In one embodiment, the control module 104 is coupled to the metering devices 112 so that an amount of catalyst delivered to the delivery line 115 may be monitored or metered. One suitable control module is described in United States Patent Application ~~Serial No. 10/304,670~~ Publication No. 2004/010929, filed November 26, 2002, which is incorporated by reference herein in its entirety.

**[0045]** The separator 502 includes two or more flanges 506. At least two of the flanges 506 are coupled at a hinge 510 extending in an axial orientation within the vessel 501. The hinge 510 allows the relative orientation of the flanges 405 to be adjusted thereby allowing the volumetric ratio between compartments to be selectively adjusted. In the embodiment illustrated, the adjustable separator 510 comprises three flanges 506a, 506b and 506c (hereinafter collectively referred to as "flanges 506") that divide the storage vessel 501 into the three compartments 504. At least one of the flanges 506 may be rotated about the hinge 510 (as shown in phantom as flange 506") to adjust the volumetric ratio between the compartments 504.

**[0048]** Figure 7 depicts one embodiment of the locking mechanism 640 that may be utilized to fix the orientation of the flanges ~~502~~ within the vessel 501. In the embodiment depicted in Figure 7, the locking mechanism 640 includes a screw 702 threaded through a block 701 affixed to the flange 506a. The block 501 may be

coupled to the flange 506a by welding, screwing, riveting, bonding and the like. As the screw 702 is rotated to extend through the block 701, the screw 702 is tightened against the vessel 501 thereby locking the flange 506a in a predefined position. It is contemplated that the locking mechanism 640 may be part of, or interact with the hinge 510, or may be a clamp, pin or other device suitable for fixing the flange 506a (or other movable flanges 506) in a predefined position. Moreover, as the locking mechanism 640 allows the flanges 506 to be repositioned, the volumetric ratio between the compartments 504 may be reconfigured to allow greater flexibility in choice of catalysts utilized in the system 500.